Appendix B

PRIMARY CARE MODELS WHITE PAPERS

Statewide Health Workforce Symposium

Innovative Primary Care Models to Improve Access and Outcomes

Ben Raimer, M.D., Professor and CAP Primary Investigator
University of Texas Medical Branch
301 University Blvd.
Galveston, Texas 77555
409- 772-5033 (phone)

Title: **GALVESTON COMMUNITY HEALTH ACCESS PROGRAM**

Summary:
Historically, the University of Texas Medical Branch at Galveston (UTMB) has served indigent Galveston County residents for health care needs. As the federal funds to offer free services have been reduced, the importance for these residents to become established in a medical home at the local Federally Qualified Health Center (FQHC) or Health District has emerged. Galveston Health Care Access Program (CHAP), formerly Galveston Community Access Program, was funded for the purpose of facilitating access to and demonstrating adherence to treatment in a medical home.

Our CHAP program proposed to integrate a cooperative health and social services multidisciplinary model. One element of the approach includes case-management for more appropriate medical care access and better disease management. This is a system reengineering between two hospital Emergency Departments and the county FQHC for the case management and direct referral of clients out of the ER system and into a medical home. FQHC case management follows up getting clients enrolled in the clinic and for other eligible programs including pharmacy assistance. Clinical case management is also a part of mental health management and a comprehensive diabetes education program. The development of a self-care education program for people with diabetes includes a culturally sensitive curriculum and Action Plan that can be delivered at the health district or in a variety of community settings using community health workers and other lay or retired health professionals. The East Texas Area Health Education Center (AHEC) works with the training and deployment of community health workers.

CHAP has worked with the Gulf Coast Center to provide transportation services to clinic appointments. CHAP has supported the expansion of an Information System (Web Care) to track the delivery of social services to homeless and others in need. Used primarily by the Jesse Tree, training on the use of the system has been done to increase use by other services.

Our Model relies on the use of a Stakeholder group who meets twice a year in a retreat format and the reliance on a Planning Group that meets bi-monthly. The 3rd year effort has been the development of Task Forces to continue communication for Programs and support sustainability. Programs have been developed and evaluation systems are being implemented.

How will your model improve outcomes without increasing health care cost?

- 24/7 health care triage (Hotline)
- Increase ID of eligible patients
- Increase early intervention
- Reduce ER, pharmacy utilization and cost
- Reduce duplication of services
- Increase use of disease management guidelines
- Increase use of community resources

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- Increase use of community health workers
- Increase use of community education
- Increase use of preventive programs

Several best practices emerged to improve service and contain costs.

- First, a case management program was established in the two county Emergency Rooms (Mainland Medical Center (MMC) and UTMB) to screen and refer individuals and families eligible for enrollment into the County FQHC. MMC hired a full time case manager yet this cost was offset by the immediate savings appreciated by reducing ER visits. MMC has expanded this program by incorporating a mental health case manager and offering free space in their hospital for a resource coordinator from the Jesse Tree, Inc., a social support organization making the approach to care holistic. UTMB followed by dedicating a part-nurse to this duty and has since elevated this position to a full time social worker.
- Second, an Information System software program, Web Care, was greatly enhanced. Used primarily by the JesseTree (JT), the coordination and tracking of social services by resource coordinators is now documented by the JT and hopefully other organizations will join this network. JT has worked to leverage faith based funding for client needs.
- Third, a comprehensive education program for diabetics is in place to reduce the cost of diabetic care. The creation of a culturally and literacy appropriate curriculum that uses an action plan to develop self-care skills was developed and translated into Spanish. Now in modular format, community health workers and others can use the material in community settings for free. Clients in the program have increased compliance with appointment keeping for routine eye and foot checks and forced the CAP Coalition to find test strips at an affordable cost.
- Hiring a CAP case manager for mental health clients at the Health District has been a necessary expense due to the overwhelming number of clients presenting in the ERs with serious problems. Due to the lack of treatment programs, this program may reduce cost by helping clients work on ways to reduce ER visits.

What process is in place to collect and analyze process and outcome measures?

Web care, a software produce of the Jesse Tree, tracks the quantity of social services delivered by resource coordinators at the Jesse Tree. Increased use of Web Care by other agencies could help improve our knowledge of the depth and range of services offered.

- The Hospitals and the FQHC currently track the number of individuals identified and referred to the Health District for enrollment into primary care. Hospitals track the number of indigents seen and the number referred to the case manager from the financial screeners. Hospital case managers track the number of referrals to 4C's. Case managers also track the number of times the client may show back up in the ER. The 4Cs clinic tracks the number of phone calls needed to reach clients referred and number of follow-up appointments at 4C's. The system has not begun to track health outcomes for these individuals but will have that capacity.
- The Health district also screens clients and tracks enrollment into other programs such as CHIP, Qualified Medical Benefits (QMB) and pharmacy assistance programs.
- The health district enrolls clients into Diabetes Education and tracks attendance. They are now including 3 levels of evaluation for Diabetes Education: clinical (monitoring of HA1C, frequency of visits for eye, foot and other routine exams) patient satisfaction and collaboration. This third level of evaluation is process evaluation looking at the strength of the social network agencies aiding people with diabetes.

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- AHEC works with the Health District to coordinate community based education and reports the activity of training and deploying Community health workers in this area.
- Current monitoring of the CHAP website give us a hit count of the number of authorized personnel who access the Health District formulary and Disease Management guidelines for the treatment of Diabetes.
- The Health Care Hotline reports the number and type of calls received daily.
- Aside from the bimonthly CAP meetings, several Task Forces have formed to discuss the process for different programs.
- These measures are currently reported to the CAP PI and reported to HRSA as part of the grant evaluation -in this third year of the grant, each entity has assumed the responsibility of collecting and sharing data from their programs to the Coalition.

Does your model emphasize standard treatment protocols (evidence-based practice guidelines) and patient instruction and reinforcement concerning self-care?
Yes. The Multidisciplinary Model stresses the use of disease management guidelines, a formulary and self-care. This model emphasizing a holistic approach with medical and mental health services delivered in FQHC.

How will this model be used to create a "wellness model" rather than an "illness model"?

- By creating a health care delivery system change that facilitates the focus of health care delivery from the ER to the Health District, primary care in a medical home is emphasized.
- Enrollment into a Diabetic Education class that uses a self-management approach to lifestyle change is supported (nutrition classes)
- Community health workers are currently active in area public schools that have greater than 56% of children on federally subsidized school lunches with oral health classes and materials.
- AHEC smoking cessation classes, increased community walking (exercise) programs
- Community health awareness about risk factors

What effect will your model have on the demand for health workforce in the future? (What numbers and types of health professionals will be needed?)
Will recognize collaboration with multidisciplinary teams

- Will need workforce willing and able to use available and new technologies (smart cards, palm pilots, electronic medical records and other data collection applications (Clin Web and Web Care)
- Integrated delivery system requires doctors, advanced practitioners (nursing and physician assistants, health educators, case managers, lay health workers

How will the community be utilized to improve the health of the community? (Will lay people be trained as extenders?)

- Community health workers, educators and volunteers are from the ranks of the populations we are reaching
- Leverage resources from faith based organizations

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How will your model improve the culturally sensitive delivery of health care?

- Cultural competence and linguistic appropriateness are fundamental to the programs and are emphasized through training and educational programs
- Care delivery and educational programs targeting Hispanics

How will your model improve health disparities and access to care?

- Improvement of access includes programs designed to reduce barriers to care, such as transportation systems, language, and eligibility for services, use of community based resources and care coordination and follow-up involving a focus on establishing a medical home.
- Health disparity reduction is targeted to education of specific at risk populations and increase awareness of issues among health professionals.

How does or how could technology be utilized to improve the effectiveness of your primary care delivery model in terms of outcomes or cost?

Web based systems improve tracking of patients and sharing information within the system.

- Use of Telehealth improves access among at risk populations to specialty care
- 24/7 phone service provides appropriate triage of patients and caregivers to right point of care and disease information.
- Web site provides navigation system for patients seeking health care resources. Site offers access for health professionals and caregivers to formularies, disease management guidelines and community resources.

What are the barriers to implementing your model?

- Like all systems, sustainable funding is an ever-present issue
- The slowness and resistance in system change
- Training and education

What regulatory/legislative/reimbursement issues will be required to implement or expand your model?

- Medicaid, CHIP and County contract reimbursement for indigent health care
- Expansion of care for families of eligible clients
- Specific funding to sustain prevention and education programs
- Funding of care management and resource coordination programs including Telehealth

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Margaretha Nielsen, Executive Director
Rockwall Area Healthcare, Inc.
102 South First Street
Rockwall, TX 75087
(972) 772-8194 (phone)
(972) 772-8175 (fax)

Title: **ROCKWALL AREA HEALTHCARE GENERAL CLINIC**

Summary: The Rockwall Area Healthcare, General Clinic was established to assure that the chronically ill and acutely ill uninsured, lower income residents of Rockwall County had a safety net. Income guidelines for care are set by the 200% of Federal poverty guideline amount. Each person presenting for care is assessed using a tool and accepted for care, whether or not they can pay the minimum care fee at the time of service.

The umbrella organization of social services is Rockwall County Helping Hands. This organization refers the clients to the clinic and in some cases, depending on need, underwrites the office visit. Patients are asked to pay what they are able to pay and to make payments if they cannot pay.

Services are provided by volunteer medical doctors and contract advanced practice nurses. Lab services are provided at Clinic cost. Ancillary personnel are paid by the Non-profit Clinic through funds privately raised and donated. Many medication samples are donated and other long term prescription needs are referred to an assistance program (also housed in the Clinic.)

Clinic hours are Monday through Thursday from 5PM to 6PM by appointment. Volunteer doctor clinics are held three mornings each month. The clinic is housed in an existing clinic facility that is used for Title V and Title XX services and for Texas Vaccines for Children. Because these services end at 5pm, the general clinic can be held in the same space, with the same ancillary staff. Because the clinic hours are long, the clinic is open only four afternoons a week with Friday off. The volunteer doctor clinics are scheduled around the Titled Program Clinic hours.

Contract employee salaries and supplies are paid for with the fees collected and many community donations (exam tables, lamps, dressing supplies, syringes)are used.

How will your model improve outcomes without increasing health care cost?
The acutely ill are treated at a minimum cost prior to exacerbation of the illness requiring hospital care. Preventive health teaching is incorporated into each visit.
Chronically ill persons are assisted with medication preventing exacerbation of their conditions and do not require hospital care.

What process is in place to collect and analyze process and outcome measures?
A quality assurance document tracks the request for care, the date of service and outcomes are measured by return visit assessments.

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Does your model emphasize standard treatment protocols (evidence-based practice guidelines) and patient instruction and reinforcement concerning self-care?
Yes.

How will this model be used to create a "wellness model" rather than an "illness model"?
By incorporating health and wellness teaching with each patient encounter. By encouraging patients to maintain health.

What effect will your model have on the demand for health workforce in the future? (What numbers and types of health professionals will be needed?)
Volunteer medical doctors will be needed to expand service hours. It would be possible to keep a doctor occupied every morning of the week. For now, our growth is limited by the clinician availability.

How will the community be utilized to improve the health of the community? (Will lay people be trained as extenders?)
The community will continue to support the Clinic financially, by volunteering to work in the Clinic and by participating in Board of Director oversight.

How will your model improve the culturally sensitive delivery of health care?
Interpreters are used for all non English speaking clients seeking care. No patient is turned away due to ethnicity or racial background.

How will your model improve health disparities and access to care?
Yes, by providing a low cost home for acute and chronically ill persons who have not had access to care.

How does or how could technology be utilized to improve the effectiveness of your primary care delivery model in terms of outcomes or cost?
Electronic medical records would reduce the time spent by Clinicians on records and allow more persons to be seen. Software for the Patient Medication Assistance piece would enhance service delivery.

What are the barriers to implementing your model?
We need more volunteer medical doctors. We need a stronger financial cushion.

What regulatory/legislative/reimbursement issues will be required to implement or expand your model?
If we expand to accept Medicare patients, our facility will have to be modified to pass the requirements for Medicare providers.

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Williams, J.R., Mechler, K.K., and Akins R.B.
Rural and Community Health Institute (RCHI), The Texas A&M University System Health Science Center
John B. Connally Building, 301 Tarrow Street
College Station, Texas 77840
(979) 458-7240 (phone)
(979) 458-7213 (fax)

Title: **PEER REVIEW PROGRAM FOR SMALL RURAL HOSPITALS**

Summary: The Rural and Community Health Institute (RCHI) recognizes the need to support the peer review process for rural hospitals in the state of Texas. Rural hospitals, especially hospitals with less than 100 beds, have limited numbers of specialty physicians on staff, and the hospital peer review process may be complicated by conflict of interest, lack of internal expertise, issues related to utilization of new technology, confusion if peer review committee members come to conflicting recommendations, and need of an expert opinion in cases of potential malpractice suit. RCHI offers an effective, economical, and reliable option for rural medical staffs to objectively evaluate the quality and appropriateness of patient care.

The peer review program is administered by RCHI and the process is internal in nature since all peer reviewers are staff of the participating hospitals. The process provides for objective and impartial peer review from reviewers that are not in direct competition with the reviewed physician, have expertise in the same specialty and are practicing under the same or similar circumstances in rural hospitals. RCHI also offers participating hospitals the service of medical documentation review for physicians who do not have problematic cases. Reviewing a certain number of cases per physician annually allows developing of "profile reports" per physician and assists hospitals in physician recredentialling. The Peer Review program also includes criteria to identify safety system issues. By considering all variables that may have impacted the outcome of a case, the RCHI process is seen as non-punitive and promoting systems thinking and learning.

Through its Peer Review Program for Small Rural Hospitals RCHI promotes the incorporation of quality improvement methods and approaches into peer review; provides objective and impartial reviews; assists rural hospital staffs in meeting the increasing and dynamic requirements of care review and fulfilling their legal obligation to provide quality care to patients; disseminates information regarding peer review standards, criteria and practices; and fosters improvement in quality of care.

RCHI's Peer Review program is in compliance with HIPAA regulations and ensures protections afforded by peer review statutes. Longitudinal results of the peer review program for rural hospitals will provide basis for trending of entities and individual providers, as well as data in support of legislative recommendations.

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How will your model improve outcomes without increasing health care cost?
Our model utilizes resources already allocated to peer review within healthcare organizations. Our services include activities such as but not limited to managing peer review committees consisting of physicians with like specialties from different rural hospitals, preparation of reports to peer review committee members and final reports to participating facilities, committee agendas, outcome measurement, providing clinical guidelines, and promoting of quality improvement methodology for healthcare improvement.

What process is in place to collect and analyze process and outcome measures?
RCHI is developing a database to collect, analyze and report on disease specific outcomes of care. Additionally, RCHI provides analysis of peer review outcomes for trending the clinical performance of individual physicians and facilities.

Does your model emphasize standard treatment protocols (evidence-based practice guidelines) and patient instruction and reinforcement concerning self-care?
Our peer review model utilizes evidence-based medicine practice models. For each case reviewed, best practices and clinical guidelines are provided to the peer review committees to support their decision process.

How will this model be used to create a "wellness model" rather than an "illness model"?
By regularly providing physician committee members with clinical protocols and best practices, we expect that over time, as these best practices are followed, we will shift from acute care to prevention healthcare model.

What effect will your model have on the demand for health workforce in the future? (What numbers and types of health professionals will be needed?)
Our program targets physicians' peer review and our model ensures a shift of the paradigm from a punitive method of evaluating peers to a proactive quality-based approach.

How will the community be utilized to improve the health of the community? (Will lay people be trained as extenders?)
N/A

How will your model improve the culturally sensitive delivery of health care?
Our process is focused on physicians. Should there be a cultural bias on part of a reviewer, the blinding of the medical record prevents it. The blinding of records submitted for review includes blinding of patient identifiable information, physician, facility and other healthcare professionals identifiable information.

How will your model improve health disparities and access to care?
Our peer review model identifies whether the appropriate care was provided at the appropriate time and level.

How does or how could technology be utilized to improve the effectiveness of your primary care delivery model in terms of outcomes or cost?
Technology is a key foundation to our model, allowing cost-effective, timely and secure transfer of information between rural hospitals, some of which are more than 100 miles apart.

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What are the barriers to implementing your model?
The key barrier is working with physicians to ensure their buy-in into a non-traditional model of peer review.

What regulatory/legislative/reimbursement issues will be required to implement or expand your model?
No additional regulatory, legislative or reimbursement issues are required to implement or expand our peer review model. However, we must be very cognizant not to violate peer review protections.

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Debra A. Williams, Project Director
Southwest Texas Network Community Access Program
1119 Summit Crest
San Antonio, Texas 78258
(210) 481.9167 (phone)
(210) 481.9165 (fax)

Title: **COMMUNITY ACCESS PROGRAM**

Summary: The STN Community Access Program is a collaborative effort of roughly 100 regional health care and service providers, local government, education, ministerial, civic and community organizations and individuals. We serve ten Southwestern and South Central Texas counties: Atascosa, Bexar, Dimmit, Edwards, Kinney, Maverick, Real, Uvalde, Val Verde, and Zavala. The geographic area consists of 14,679 square land miles and is based in the HRSA designated U.S.-Mexico Border Health Region. Together, we work in diverse groups toward the common goal of improving mental and medical health care access throughout our service area.

STNcap has eight major objectives for addressing the needs of target uninsured and underinsured persons. These persons are under 65 years of age and represent roughly
26 % of the total population (1,448,407 persons). The objectives are:

1. Integrate mental health services into primary care as a means to improve access, quality, and cost of care.
   a. Community Health Center Model

2. Improve awareness and access to available medical, mental and oral health services.
   a. HealthyMindConnection.org
   b. TIRN

3. Improve transportation for medical, mental and oral health services.
   a. Matching funds for van purchases

4. Develop a regional database, FQHC-based practice management system, and data repository.
   a. Software purchases

5. Assist in the recruitment and retention of service gap providers.
   a. Primary care providers
   b. Mental health providers

6. Enhance clinical development and community education
   a. ASIST suicide prevention training
   b. Cultural sensitivity training
   c. Coding training
   d. HIPAA training
   e. Privacy and security assessments

7. Increase the availability of pro bono mental health services; provide manned referral lines to enhance access

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a. Clinic Without Walls Project
c. Referral lines

8. Provide application and renewal assistance for Children's Health Insurance (CHIP) and Medicaid appropriate children.
   a. CHIP education and assistance

The goals and objectives of the consortium are centered on helping our communities overcome the stigma of mental illness, improving community awareness of treatment choices, helping community partners address mental health and family medicine shortages, facilitating entry into treatment, and making strides to reduce some of the financial barriers to treatment. Key programs and activities:

HealthyMindConnection.org:
In partnership with the Mental Health Association in Greater San Antonio, an interactive website has been developed to provide online referral and information access for professionals and the general public.

Developed to ease the frustration and difficulty of searching for psychiatrists, psychologists, behavioral health services, psychotherapy, and support groups, users can use the site's database to locate mental health providers in 10 counties. Similar to physician referral models, users complete an online preference questionnaire that helps match them to select service providers. Users may also query the database by personal preferences for gender, city or county location, language spoken, cultural expertise, service need, and the provider's willingness to accept sliding fees or health plan reimbursement. Approximately 600 therapists are listed on the site.

Persons anticipating the need for mental health services use the website to access self-assessment questions and guidelines that help them find services that fit their needs. They can also find practical information about how to select a mental health professional, the types of treatment available in their area, regional pricing for therapy, guides for assessing the service quality of mental health professionals, how to participate in self-help groups, and how to file a complaint when there is suspicion of wrongdoing. There are links to over 35 mental health Internet sites to assist with additional questions or topics not otherwise covered on the website.

A unique feature of this website is its use of a business model for self-financing beyond grant support. The website charges mental health providers to list on the website and proceeds from these listings, banner ads and other listings are used to perpetuate and improve the project.

Pro Bono Mental Health "Clinic Without Walls"
Again partnering with the Mental Health Association in Greater San Antonio and dozens of professional and community partners, the STNcap collaborative has enlisted pro bono services of mental health providers to provide no-fee services to low income persons without access to mental health services, specifically:

Low Income Without Access to Services
Families without abuse issues
Working poor parents
People not receiving services through any other provider
People with incomes at or below 200% of poverty level

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People ineligible for other mental health benefits
Women 21 years old and older

People With Issues Responsive to Brief Therapy
Adults with depressive issues
Adults with anxiety disorder
Adults with anger issues (without violence)
Non-chronic/non-severe mental disorders
Victims of domestic abuse
Persons with willingness to be treated
Adults with adjustment issues or life stress
Recent single parents
Groups (bereavement/loss, parenting issues, divorce)

The Clinic Without Walls project provides gap services. Perhaps more intensely than other areas of health and medicine, mental health is hampered by disparities in the availability of and access to its services. These disparities can be viewed in terms of racial and cultural diversity, age, and/or gender. But the key disparity common to all groups of persons is financial status. Financial barriers block needed mental health care from far too many people--whether they are persons that have health insurance with inadequate mental health benefits, or they are one of the 41.2 million Americans who lack any mental health insurance coverage.

Specific client populations were chosen for this project because there are public mental health entities organized and receiving local, state and/or federal funds to provide mental health services. These agencies provide various pieces of the service continuum for our project area and have a coordinating body and oversight boards to see that services are provided on contract. Because there is simply not enough money to meet the needs of all persons, the most ill are served first and we have programs in place that are designed with the needs of these patients in mind. Unfortunately, persons who are experiencing short term difficulties or have not been diagnosed at a level that qualifies as a "priority" are pushed far down on the waiting list of publicly funded agencies or never make the list.

We know that four out of five uninsured persons are in working families with a full-time worker or part-time worker. Low-wage workers are at greater risk of being uninsured, as are unskilled laborers, service workers, and those employed in small businesses--the bulk of our regional population. There are disproportionately more adults than children among the uninsured, as coverage for Medicaid and CHIP primarily assist children. Therefore, the Clinic Without Walls project best serves low-income adults who run the highest risk of being uninsured, are less likely than all other groups to have other resources to obtain services, and are responsive to brief therapy.

The Clinic Without Walls project is for persons more likely to respond to brief therapy because we have a mechanism in place to refer persons with very serious, disabling, and chronic conditions or illnesses to other providers. Pro Bono providers are volunteers who give of their time and services and it is not the intention of this program to ask them to provide treatment for clients who need long-term care that is currently available throughout the communities by other established resources.

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Services Provided:

- Recruit and coordinate volunteer provider pool
- Client intake, information line and referral service
- Clinic site coordination
- Screening clients for eligibility
- Matching clients with providers; scheduling
- Maintain, store and secure access to client charts
- Provide medication access
- Data collection and management

The Community Health Center Model for Mental Health Delivery is currently in its initial stages of development and will be made available post implementation.

How will your model improve outcomes without increasing health care cost?
Service integration is an especially important strategy for our rural areas. There is limited availability and accessibility to mental health and specialty services. In polling our partners we realized that the rural areas lack specialty and mental health professionals. Physical distance and lack of public transportation presented barriers to care even when resources are available; particularly urban resources. Many residents of rural areas are unwilling to access mental health treatment services because of the stigma and concerns about confidentiality. Lacking sufficient financial resources to produce new services, we developed a form of service integration to assure access to services that are currently available and we are in the process of developing community health center-based services, particularly mental health services, to assure access to these services in an environment that is currently known and trusted by residents.

Our model improves outcomes by creating working partnerships with healthcare centers, community organizations, and federal/private funding sources. Direct costs to uninsured persons has been augmented through sliding fee scales provided by community health centers and pro bono mental health services through the Clinic Without Walls project. OB and Family Practice providers have been successfully recruited for the community health centers, adding accessible providers and services. Additionally, mental health providers have been recruited to develop and implement our community health center mental health model.

Referral line services have strengthened the communication lines between established providers. Each of the community health centers and the Mental Health Association in Greater San Antonio now operate full service referral lines for primary and mental health services.

Transportation issues have been addressed by providing matching funds to the Community Council of South West Texas and Atascosa Health Center. By providing matching funds these community partners were able to purchase 6 transport vehicles to provide additional routes and services at no additional cost to consumers.

What process is in place to collect and analyze process and outcome measures?
The networked practice management system was purchased in year one and has steadily improved the billing and information capture at two of the FQHCs. Reporting formats are being standardized for all 3 FQHCs to facilitate operational management, patient accounting and new program development. Shared information technology services, particularly those of the CIO have helped the two rural centers access a level of expertise that was not otherwise financially feasible for their

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operations. Implementation of the practice management system has increased staff awareness of internal practices, the failure of inaccuracy, and the vital need for consistent data. By taking a long, hard look at how data is gathered and stored, and ultimately discovering why it must be recorded and reported in a systematic and consistent manner, this allowed staff to identify inadequate practices, makes changes and improve their functional skills and operational contributions.

Does your model emphasize standard treatment protocols (evidence-based practice guidelines) and patient instruction and reinforcement concerning self-care?
This segment of the model is currently being addressed through trials with the community health center-based mental health program and through the Pro Bono Clinic Without Walls project.

How will this model be used to create a "wellness model" rather than an "illness model"?
The objective of this model of integration is to provide a comprehensive spectrum of mental and medical health care services. The model is founded on community health center and public health models that emphasize wellness, health education and prevention. The approach is proactive versus reactive and is designed as an ongoing project to fully integrate local primary and mental health services.

Using the public health model, major elements include:

- Early detection and assessment
- Prompt and effective treatment
- Prevention measures
- Comprehensive health education

These elements form the basis for community health center service delivery, referral practices to primary and specialty providers, and coordination of services and education through outreach activities, education, web-education and clinical development activities.

What effect will your model have on the demand for health workforce in the future? (What numbers and types of health professionals will be needed?)
High demand is recognized for the following:

Obstetricians	Psychologists	ACP
Pediatricians	LMSW	
Psychiatrists	LPC	

How will the community be utilized to improve the health of the community? (Will lay people be trained as extenders?) N/A

How will your model improve the culturally sensitive delivery of health care?
Training and education offerings are underway, beginning with 5 Cultural Sensitivity Training sessions throughout the service area. These training sessions have been contracted with the Center for Health Policy Development.

How will your model improve health disparities and access to care?
The outcomes of integrating primary care and mental health services address access, quality and cost of care provision. By creating a formal, coordinated system of health
and mental health delivery, integration has the potential to increase access to health care for those who need it, improve care quality, and provide a more cost-effective use of

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available services while new services and service providers are being introduced into the communities.

How does or how could technology be utilized to improve the effectiveness of your primary care delivery model in terms of outcomes or cost?
The impact on service delivery is being tracked through a practice management system. The system is in need of sufficient upgrades to incorporate mental health services into the primary setting. Technological access to continuing medical education and provider training would be an asset for the model.

Another area for consideration is telemedicine. The use of interactive video has the potential to bridge the gap between primary care physicians and urban specialists. Similar linkage between rural physicians and urban-based mental health specialists could considerably improve access to urban-based consultation. This technology would allow primary care consultation while developing professional relationships.

What are the barriers to implementing your model?
The geographic barriers are great and could be easily overcome by breaking into smaller county groups of 3-5 rural counties versus the 9 in our collaborative. Smaller groups would allow a more focused, individualized approach to integration.

What regulatory/legislative/reimbursement issues will be required to implement or expand your model?
Expanded Medicaid and Childrens Health Insurance coverage will be required to expand the mode.

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Chris French Beatty, Treasurer
Texas Dental Hygiene Educators' Association
2217 Burning Tree Lane
Denton, TX 76209
940-898-2873 (phone)
940-898-2869 (fax)

Title: **The School Dental Hygienist**

Summary: The profession of dental hygiene was envisioned by Dr. Alfred C. Fones, the Founder of Dental Hygiene, as a distinct profession positioned in dental public health versus working solely in private dental practices. The purpose was to provide oral health education and preventive services to school children. Dr. Fones created the first school of dental hygiene in Connecticut in 1913. In 1914 he began a demonstration program to have dental hygienists provide educational services and preventive treatment in the Connecticut public schools, which successfully reduced oral disease rates of these children. The model suggested for Texas is this original model. Unsupervised public health dental hygienists practicing in schools can provide ongoing oral health education, oral prophylaxis (teeth cleaning), fluoride treatments, fluoride varnish, dental sealants, screening for oral disease, and referral for dental treatment. The safety and efficacy of such a program has been demonstrated with the original model that Dr. Fones created as well as with several programs in the U.S. where dental hygienists are able to establish independent or collaborative practices to provide preventive care for the untreated low-income children and establish referral programs for children who would not otherwise seek dental treatment. The funding for these programs comes from the ability of dental hygienists to file for Medicaid and other insurance to support the program. Referral relationships are established between the dental hygienist and dentists in order to provide diagnosis of disease and continuing care. Such a program would require a change of law and regulations. First, the supervision requirement would need to be changed to allow the dental hygienist in such a setting to practice unsupervised by the dentist. Second, the dental hygienist would need to be able to file for Medicaid and other insurance in order to generate funding for the program.

How will your model improve outcomes without increasing health care cost?
The children who need preventive care the most would benefit from it. Research demonstrates that provision of cleaning, fluoride, sealants, and classroom oral health education, in combination, reduces disease in a population. Low-income children do not have access to preventive care because of cost barriers. This program would bring preventive care to those who need it the most. The program can be paid for with Medicaid dollars and other insurance benefits that are now being used for more expensive examinations and treatment provided by dentists in private practice.

What process is in place to collect and analyze process and outcome measures?
The program itself would provide the process to collect and analyze outcome measures. Children would be screened annually to document lower disease rates, and number of children treated with fluoride varnish and sealants would be tracked.

Does your model emphasize standard treatment protocols (evidence-based practice guidelines) and patient instruction and reinforcement concerning self-care?
Yes. It is based on evidence-based practice for dentistry and dental hygiene and public health literature on school dental health programs. Oral health instruction in the classrooms provides the instruction and reinforcement necessary to motivate and reinforce appropriate self-care. Numerous

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studies have demonstrated that dental sealants, fluorides, and fluoride varnish prevent dental caries, and these treatments in combination provide greater benefits.

How will this model be used to create a "wellness model" rather than an "illness model"?
The program would emphasize the prevention of oral disease and referral for early treatment of disease to prevent more severe disease and loss of teeth.

What effect will your model have on the demand for health workforce in the future? (What numbers and types of health professionals will be needed?)
The model would utilize dental hygienists who are already in the work force. The state has an adequate number of dental hygiene programs to provide the work force. The excessive need for restorative services in the underserved community would be lessened and therefore ameliorate the problem of a shortage of dentists to treat these children.

How will the community be utilized to improve the health of the community? (Will lay people be trained as extenders?)
The community is utilized by placing the program in the public schools. Public school personnel would become aware of the need and be a part of encouraging and reinforcing good preventive oral care. Involvement of parent/teacher organization and other community leaders would help to empower the community.

How will your model improve the culturally sensitive delivery of health care?
All cultures are represented in the public schools. All children, regardless of cultural background, would benefit from the program. Lower SES is more prevalent among minority groups, and these children would benefit the most from this model.

How will your model improve health disparities and access to care?
All children will have equal access to preventive care to improve oral health disparities among children. The population that needs care the most, the lower SES children, would benefit the most.

How does or how could technology be utilized to improve the effectiveness of your primary care delivery model in terms of outcomes or cost?
The model includes the placement of dental sealants and fluoride varnish, which reflect current technology.

What are the barriers to implementing your model?
Current supervision laws limit the ability of dental hygienists to provide preventive care for the population who do not visit the dentist. Current law does not allow a dental hygienist to be employed by a school district to provide clinical preventive services. In addition, administrative code prevents dental hygienists from being awarded Medicaid "provider" status and from being reimbursed by other insurance programs.

What regulatory/legislative/reimbursement issues will be required to implement or expand your model?
Changes in supervision laws and reimbursement regulations for dental hygienists will be required to be able to implement the model.

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Andrea Scott, RDH, President
Texas Dental Hygienists' Association
16026 Cutten Road
Houston, TX 77070
281-370-8356
281-355-5449

Title: Health Promotion Specialists: School Based Oral Health Program
Summary: Mission Statement: To insure every child has the right to total health through oral health by access to quality, caring, preventive services regardless of socioeconomic status.
Advantages of HPS Public/Private Partnership: Nondiscriminatory, offer services to all children with a parent/guardian permission, little to no cost to state depending on program i.e. Connecticut/ South Carolina models.

Why school based? You can't teach a child that isn't healthy, no transportation problems, existing relationship with the school creates less anxiety, less classroom time is missed, and earlier intervention.

HPS program emphasis is access to care and prevention. Early treatment, pain prevention, maintaining optimal oral health reduces need for costly treatment.
HPS core competencies: Access, Educate, Provide, Manage, And Measure.
Program Components:

1. Research: Oral Health assessment, data collection i.e. K, 3rd, 7th grades, system to record data such as medical history, how many seen, types of procedures performed
2. Prevention: Dental Health Education and Promotion, Tobacco Intervention and Cessation Education, X-rays, Prophylaxis, Fluoride, and Sealants
3. Restoration: Referral coordination, Mobile Dental van

HPS in South Carolina has screened over 33,000 children; over 28,000 children have received preventive services (cleanings, sealants and fluoride). Children have had their pain alleviated and oral health awareness has been increased for both children and parents. Consent forms are sent home to parents using second grade reading level, no treatment is performed without consent. Consent forms are valid for the entire time child is in school. Letters of referral goes with each child with lists of dentists (and those that are Medicaid providers) to refer. The HPS does not replace the restorative care a DDS provides, but statistics have shown with early intervention, less restorative care is needed.
Models that are proven: Connecticut has had a program in place since 1910; both dentists and dental hygienists are providers. The program is school based with clinics in the school or utilizing mobile vans. They are self-sufficient in that they run completely off reimbursement from Medicaid, HUSKY, and private insurance along with grants to cover the uninsured. South Carolina is independent of the school where as the HPS are responsible for all facets of the program.

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How will your model improve outcomes without increasing health care cost?
Depending on the program model chosen, South Carolina would be more independent than the Connecticut model. The Connecticut model the RDH is the provider and an employee of the school, and the school receives reimbursement of services. The South Carolina model allows for the provider (RDH) to be reimbursed directly.

What process is in place to collect and analyze process and outcome measures?
A computer program would need to be utilized to collect the data and to do analysis. Dental record would be kept on each child seen and data entered into the program as to procedures provided.

Does your model emphasize standard treatment protocols (evidence-based practice guidelines) and patient instruction and reinforcement concerning self-care?
The following are accreditation standards for all accredited hygiene programs:

- •Standard 2-18 Graduates must be competent in providing dental hygiene care for the child, adolescent, adult, geriatric and medically compromised patient.
- •Standard 2-19 Graduates must be competent in providing the dental hygiene process of care, which includes:
    - •Assessment
    - •Planning
    - •Dental hygiene diagnosis
    - •Dental hygiene treatment plan
    - • Implementation
    - • Evaluation
    - •Subsequent treatment needs
    - •Continuing care
    - •Referral
    - •Standard 2-22 Graduates must be competent in assessing, planning, implementing and evaluating community-based oral health programs, including health promotion and disease prevention.

How will this model be used to create a "wellness model" rather than an "illness model"?
This model emphasizes the need for early intervention; more costly services as well as needless pain, suffering, and lost school days could be avoided with patient education and preventive care.

What effect will your model have on the demand for health workforce in the future? (What numbers and types of health professionals will be needed?)
With the growing population of RDH's in the field, they are an under utilized workforce that would be utilized to their fullest potential. Better utilization of the RDH as demonstrated in these models could address or reduce the growing need for dental care that is not expected to be met by projections of the current methods. This would allow hygienists' to stay in the field because the hours would correspond with their children's school hours. Dental assistants would be utilized as well in record keeping and insurance filing.

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How will the community be utilized to improve the health of the community? (Will lay people be trained as extenders?)
Parents would be encouraged to visit the HPS during their child's visit. RDH's are the only licensed professional that can perform prophylaxis besides DDS, at this time no extenders would be trained.

How will your model improve the culturally sensitive delivery of health care?
There would be no cultural boundaries; all children would be welcome to utilize services. Accreditation standards for dental hygiene programs include Standard 2-21 Graduates must be competent in interpersonal and communication skills to effectively interact with diverse population groups. Forms will be in second grade reading level and in languages pertinent for the areas.

How will your model improve health disparities and access to care?
All children will be eligible, most programs start where the free lunch programs are the highest, these children are most likely to be on Medicaid or uninsured.

How does or how could technology be utilized to improve the effectiveness of your primary care delivery model in terms of outcomes or cost?
Mobile dental units, mobile dental vans, portable x-ray units, computers to record and collect data for analysis would all be utilized. Teledentistry can be utilized in recording the data and including the DDS for diagnosis.

What are the barriers to implementing your model?
Statute requirement that a dentist must examine a child before the RDH sees the child again. Current regulation states that the state board must approve employment. The practice act allows a RDH to provide one set of services with a referring dentist; the patient must then have a dental exam before any other preventive procedure is performed. The SBDE rules also state that a dentist must be on staff at a school or institution that a RDH is employed or works at.

What regulatory/legislative/reimbursement issues will be required to implement or expand your model?
RDH must be able to become providers to be reimbursed by Medicaid and private insurance plans. Changes in the practice act to allow dental hygienists to become collaborative partners with dentists to provide the needed services. Allow local anesthesia administration by RDH to be able to alleviate pain if needed during treatment. The practice act would need to be revised to allow hygienists to properly care for the preventive needs of the children.

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M. Christina Esperat , Professor and Associate Dean for Research and Practice
Texas Tech University Health Sciences Center School of Nursing
3601 4th Street
Lubbock, TX 79430
(806) 743-3052 (phone)
(806) 743-1622 (fax)

Title: **Nurse Managed Health Centers: Lights under the Bushel**

Summary: Nurse-Managed Health Centers (NMHCs) are safety-net primary health care providers in urban and rural areas. The majority of nurse-run health centers have been established by non-profit, university-based schools of nursing to meet the needs and interests of community members and to prepare qualified graduates with the skills to work in medically underserved areas with medically underserved populations.

Nurse-managed health centers provide a full range of health services, including primary care, health promotion and disease prevention, primarily to low-income, underinsured and uninsured individuals. Primary care and comprehensive health education are provided by nurse practitioners, clinical nurse specialists, registered nurses, health educators, community outreach workers, and collaborating physicians. Traditionally, nurse-managed centers offer health care to medically underserved populations and those least likely to be engaged in ongoing health care services. In the areas where they exist, these health centers have become recognized for their high quality services.

The nation's approximately 200 Nurse-Managed Health Centers are community-based nonprofit health centers managed by nurses in partnership with the communities they serve.

How will your model improve outcomes without increasing health care cost?
By using a preventive approach in the delivery of health services, NMHCs reduce Medicaid costs. National data from Medicaid managed care organizations demonstrate that patients receiving care at NMHCs experience significantly fewer emergency room visits, hospital inpatient days, and specialist visits, and are at a significantly lower risk of giving birth to low-birth weight infants compared to patients in conventional health care. These are just a few examples of improved health outcomes that overall, save costs not only within the programs, but most significantly, for third party payors as well.

What process is in place to collect and analyze process and outcome measures?
The National Nursing Centers Consortium (NNCC), a national organization that represents majority of NMHCs in the country, collects and shares data across participating centers in a Data Project Network Centers initiative. NNCC identifies quantifiable outcome and cost analysis data for use in research, advocacy related activities, grant seeking and promoting nurse-managed health centers as an effective and economically sensible model of health care.

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Does your model emphasize standard treatment protocols (evidence-based practice guidelines) and patient instruction and reinforcement concerning self-care?
Many NMHCs operate disease management programs to manage chronic diseases in their populations. For example, the Wellness Center at the Texas Tech University Health Sciences Center School of Nursing, there are formal chronic disease management programs for diabetes, hypertension, obesity and asthma. Advanced Practice Nurses use benchmarked clinical guidelines in implementing algorithms for the management of clients with these conditions. This is supplemented by a Case Management and Outreach Program that help to facilitate adherence to protocols by everyone involved. The diabetes disease management program in this center utilizes diabetes self-management training for clients enrolled in the program as a necessary adjunct to the overall management of the condition.

How will this model be used to create a "wellness model" rather than an "illness model"?
NMHCs provide more comprehensive services than the traditional medical model of primary care. NMHCs differ from other health providers by integrating mental health, gynecological, and midwifery services with primary care. Due to their intensive prenatal programs, NMHCs have remarkable healthy baby outcomes in high-risk populations. Program outcomes have shown that 85% of mothers gave birth to an infant of normal weight; over 90% completed their goal of four prenatal appointments; 50% of the infants were breastfeed; and 100% of mothers and infants were linked to primary care providers. By the first year of life, 84% of the infants had an adequate number of well child visits, and 100% of children were school-ready at age five due to on-time completed immunizations.

What effect will your model have on the demand for health workforce in the future? (What numbers and types of health professionals will be needed?)
Because the NMHC is a nursing model, it promotes the image of nurses as leaders in promoting primary care. NMHCs directly address two factors that influence the nursing shortage problem: providing training sites for students, and presenting a positive image of the nursing profession. The majority of NMHCs are operated by schools of nursing. In these academic NMHCs, nurse faculty members provide positive role models for the nation's future nurses and research opportunities for future nurse-researchers, and they present positive images of the professional nurse.

How will the community be utilized to improve the health of the community? (Will lay people be trained as extenders?)
NMHCs are critical components of America's health care surveillance system. The current and future positioning of nurses in this country, given the threats to public health, will require community-based, nurse-managed models to meet the challenge of preserving the nation's health. Many NMHCs incorporate the use of community health care workers as an extension of their clinical services. For example, NMHCs outreach workers play a critical role in caring for and immunizing the nation's underserved. Due to the aggressive outreach and follow-up efforts of NMHC staff, primary care visits have more than doubled among vulnerable urban men. NMHCs also see their clients twice as often for primary care compared to other primary care providers, which indicates that their clients understand how to use primary care appropriately.

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How will your model improve the culturally sensitive delivery of health care?
Health centers have achieved impressive health outcomes because of the cultural appropriateness of the programs they provide and their relationships with the communities they serve. Because of the embeddedness of the NMHCs within the communities they serve, they are seen as part of the community. Oftentimes, employees of these centers reside in these communities, and speak in the same voice as their clients. In a recent patient satisfaction survey of randomly selected clients, NMHCs scored "Very good" to "Excellent" on all categories. Additionally, all survey participants indicated that they plan to return to the health centers. As a testament to the effectiveness of NMHCs as culturally competent essential safety-net providers, the U.S. Department of Health and Human Services recognized this entity through both "Models that Work" and "Community Service" awards.

How will your model improve health disparities and access to care?
The demographics of medically underserved populations make it inevitable that majority of clients of NMHCs belong to low-income and predominantly ethnic groups. As such, health disparities and barriers to health care access plague these groups. NMHCs are oftentimes the safety nets that allow them access to care, which help to eliminate and reduce health disparities. Clients are educated about how to appropriately use the health care system. Primary care clients are evaluated to determine program eligibility for Medical Assistance, CHIP and other supportive programs like WIC and subsidized childcare. They are given assistance with and follow-up during and after the application process.

How does or how could technology be utilized to improve the effectiveness of your primary care delivery model in terms of outcomes or cost?
Access to electronic management information systems is crucial to the success of the NMHC model. Use of an integrated information system that interfaces electronic practice management, electronic medical records and report generating systems from constructed databases will significantly improve effectiveness of this model. At the same time, national organizations like the NNCC must promote the maintenance and expansion of existing data warehouse services for sharing of information that can document the quality of care provided in these centers, as well as the cost effectiveness of such services.

What are the barriers to implementing your model?
NMHCs constantly face the challenge of financial sustainability, because the client mix is most often skewed towards those who do not have any source of third party coverage. Thus, this is the single most dominant barrier to the implementation of this model: that these centers do not have a stable source of federal or state funding and struggle to survive from year to year with help from the U.S. Department of Health and Human Services, Division of Nursing Special Project grants, state and local government public health service contracts, and foundation donations, which provide 80% of NMHC funding. The economic crisis of nurse-managed health centers must be addressed. While the federal government recognizes the importance of community-based care and sustains Community Health Centers with federal funding authorized through the Public Health Service Act (PHSA), Title III, some NMHCs are ineligible for the Federally Qualified Health Center (FQHC) status required to receive this funding because they are governed by a university board.

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What regulatory/legislative/reimbursement issues will be required to implement or expand your model?
At the state level, there must be a change in the paradigm that provides majority of the assistance for obtaining Bureau of Primary Care monies to existing FQHCs in local communities. The Texas State Primary Care Office must seek out these NMHCs and provide all the support they need to competitively seek and obtain FQHC designation, even in places where there are existing FQHCs. At the federal level, since Congress has encouraged the Secretary to work through the Health Resources Services Administration Bureau of Primary Health Care to assist NMHCs with achieving permanent community health center status, we would like to get assistance from HRSA in gaining access to a 5% set-aside funding for public entities. Many of these NMHCs belong to systems that are designated as public entities.

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Suzan Kardong-Edgren, Director BSN Program
University of Texas at Arlington School of Nursing
Box 19407
Arlington, Texas 76019
817-272-2776 (phone)
817-272-5006 (fax)

Title: **A SUMMER ELECTIVE TO IMPROVE FUTURE HEALTH CARE PROVIDER CULTURAL COMPETENCY**

Summary: This two-week summer elective in Mexico provides a total immersion experience in the Mexican culture, family, and customs for future health care provider students. Students use Purnell's model for cultural study and participant observation to analyze sociocultural beliefs, values and practices relevant to health practice behaviors. Students live with Mexican families, attend Spanish language school and have attend lectures on traditional medicine beliefs in Mexico and the role of religion in health and Mexican life. Student learning is further enhanced by their own field work in a selected topic area of their choice. Field trips to modern Mexican hospitals and meetings with health care personnel further enhance their understanding of today's Mexican health care system. Hands on health provider practice is discouraged, as the program focus is on the student as culture learner, not health provider.

How will your model improve outcomes without increasing health care cost?
Research shows that health care agencies would prefer that health workers arrive on the job already culturally aware and competent. This model decreases health care agency costs by providing a culturally aware worker prior to agency employment, thus decreasing training time for cultural competency issues.

What process is in place to collect and analyze process and outcome measures?
Course evaluations are completed after every class. Some follow up research has been conducted, verifying the desired outcomes of cultural awareness and beginning cultural competency.

Does your model emphasize standard treatment protocols (evidence-based practice guidelines) and patient instruction and reinforcement concerning self-care?
N/A

How will this model be used to create a "wellness model" rather than an "illness model"?
N/A

What effect will your model have on the demand for health workforce in the future? (What numbers and types of health professionals will be needed?)
N/A

How will the community be utilized to improve the health of the community? (Will lay people be trained as extenders?)
N/A

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How will your model improve the culturally sensitive delivery of health care?
Students report that their cultural awareness and sensitivity is raised by this program. Students learn at least basic Spanish, health vocabulary to improve patient communication, and potential health beliefs of their clients, enabling them to blend our model of care with their patient's model of care.

How will your model improve health disparities and access to care?
Our model will potential lessen health disparities because our students understand another culture's potential health values and beliefs. Students will potentially communicate more effectively with patients because of language skills and have more empathy because of their prolonged experience of having been "the other" in an unfamiliar culture.

How does or how could technology be utilized to improve the effectiveness of your primary care delivery model in terms of outcomes or cost?
N/A

What are the barriers to implementing your model?
Costs for students to attend the program.

What regulatory/legislative/reimbursement issues will be required to implement or expand your model?
Increased assistance with tuition for students.

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Jeanette Hartshorn, Executive Director
University of Texas Medical Branch
301 University Boulevard
Galveston, Texas 77555-1042
(409) 747-6290 (phone)
(409) 747-6249 (fax)

Title: **Primary Care Telemedicine: Increased Patient Satisfaction and Decreased Costs**

Summary: The Telehealth Center, part of the University of Texas Medical Branch at Galveston, currently operates clinics in the Brazoria and Liberty counties in southeast Texas. These primary care telemedicine clinics were established to improve healthcare delivery to indigent populations of the two counties. This program seeks to develop several other telemedicine clinics in southeast Texas to provide primary care to county residents, who cannot travel to UTMB for their primary care visits and who are unable to access primary care locally. The targeted areas will almost certainly be Health Professional Shortage Areas and Medically Underserved Areas. The health care team for the clinics would be composed of clinical staff (registered nurse and hospital technical assistant) and primary care professionals (advanced practice nurse or physician). A clinic manager and a technical support person at the Telehealth Center in Galveston would also be available for consultation and troubleshooting.

The use of a case management model of health care delivery makes an important contribution to the success of the existing telemedicine clinics. The nurses and hospital technical assistants (HTAs) assist the patients through each phase of their health care and maintain frequent contact with patients via telephone. This attention helps patients by assuring continuity of care. Telehealth Center staff also facilitates access to treatment alternatives such as the patient assistance programs offered through the major pharmaceutical companies.

- Overall patient satisfaction collected by the Telehealth Center in these clinics indicates that the overwhelming majority of patients are very satisfied with the care they receive via telemedicine and would recommend telemedicine to their family and friends. In general, patients save considerable travel time and money by using the services offered through the UTMB Telehealth Center.

How will your model improve outcomes without increasing health care cost?
With this model, patients will receive treatment closer to home, rather than traveling to UTMB for their primary care visits. The patients will also receive more comprehensive care with the benefits of better case management. Telemedicine patients have fewer ER visits than they did before their association with the clinic. The ER visits the patients do have are more necessary, since they no longer need to use the ER for their primary care. The technology allows for the development of teams that include physicians and/or non-physicians to increase the cost-effectiveness of the intervention. This model results in fewer missed appointments as the patients have a shorter distance to travel. The nurse facilitates and improves communication between the patient and health care provider. The HTA and/or nurse assist the patients through each phase of their health care and maintain frequent contact with patients via telephone. From our experience, this contact allows for a closer follow-up of patients. It also helps avoid situations in which diseases go untreated and conditions worsen, thereby decreasing long-term costs for the patient and the health care system.
What process is in place to collect and analyze process and outcome measures?

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Patient satisfaction surveys and other data collection are already integrated into each clinic visit. Data is being collected in existing clinics to evaluate the overall patient satisfaction, the patient's perception of the provider, and the patient's perception of the presenter. Outcomes measures being evaluated in addition to patient satisfaction data are:
1. Number of ER visits and hospitalizations before and after being seen at the telemedicine clinic.
2. Measure of patient acuity when patient enters clinic system and at specified points thereafter.
3. Number of new patients vs. follow-ups.
4. Number of missed appointments compared with the traditional clinics at UTMB.

Does your model emphasize standard treatment protocols (evidence-based practice guidelines) and patient instruction and reinforcement concerning self-care?
The case management model emphasizes patient education, especially for the management of chronic diseases. The nurse and HTA educate patients and explain the procedures, as well as answer any questions the patients have regarding their medications or treatment. The presenters are equipped with laptops so they can provide internet-based teaching materials on demand. Patients also have a "take-home" medical record that includes all of the important patient information, such as medications, laboratory results, and upcoming appointments. Through the use of this tool, the patient becomes a more active participant in their own care and begins to accept more responsibility for their health outcomes.

All the telemedicine providers, who work with the Telehealth Center, are meeting once a month to discuss telemedicine practice issues. At the present time, the group is developing protocols for primary and specialty care telemedicine. Standard, evidence-based guidelines form the basis for these protocols.

How will this model be used to create a "wellness model" rather than an "illness model"?
This model will promote wellness by:
1. Improving access: patients are more likely to have and keep routine appointments, such as "well woman" exams.
2. Educating patients to make them more aware of health-related challenges before the challenges become debilitating.
3. Helping patients take more control of their health, become more involved in their healthcare decision-making, and more responsible for their health outcomes.
4. Working to overcome barriers of poverty and a lack of education. Services, such as the patient assistance programs associated with pharmaceutical companies, are coordinated for patients by clinic staff.
These factors help patients receive care when and where they need it, which leads them to a better understanding of the importance of preventative care.

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What effect will your model have on the demand for health workforce in the future? (What numbers and types of health professionals will be needed?)

This model will have the following effects on the health workforce:

1. Multidisciplinary teams composed of an RN, a HTA, and a health care provider (physician, advanced practice nurse, or physician's assistant-more varied types of health care providers) will make it easier to provide healthcare to Medically Underserved Areas & Health Professional Shortage Areas.
2. More jobs will be provided in the clinics: there will be a need for more nurses, HTAs, technical support personnel as the number of telemedicine clinic increases.
3. Telemedicine requires a different skill set in addition to traditional practice competence. These practitioners need enhanced communication skills to understand the importance and uses of the various types of equipment as well as the technical expertise to operate the equipment. The nurse presenters need more sophisticated assessment skills and the ability to practice more independently.

How will the community be utilized to improve the health of the community? (Will lay people be trained as extenders?)

No lay people will be used in the clinics, initially. However, moving the clinic from UTMB to the community places more responsibility on county/community. The UTMB Telehealth Center can help the community serve disadvantaged groups by providing better access to healthcare closer to home. The Telehealth Center can also be utilized as an intermediary between the existing local support programs and underserved populations in the community. The improved access to health care in the patient's community allows for more participation by the patient's family and extended support network. At a future point, some local community volunteers could be used to help staff the clinics.

How will your model improve the culturally sensitive delivery of health care?

Since The UTMB Telehealth Center has created a large network of telemedicine and distance education programs to serve special populations, it recognizes the cultural components of health and health care. The center is open to the possibility of alternative and indigenous practice as part of the healing process. Some patients might be intimidated by the use of telemedicine equipment and technology; but, with good case management, this barrier is usually easy to overcome. This model allows easier access to communities with disadvantaged and minority populations. It also gives the University the opportunity to use culturally competent personnel, some of whom will be from the local community.

How will your model improve health disparities and access to care?

Medical Underserved Areas and Health Professional Shortage Areas are already served by the UTMB Telehealth Center through the telemedicine clinics in the Brazoria and Liberty counties. These patients are indigent and prior to the Telehealth Center clinics, they had no access to primary care within their own community. This program provides better and much-needed services with a significantly decreased travel distance for the patients. Patients will also have greater access to specialty care. With this model, patients can access care when needed. Prior to this, these patients needed to travel to UTMB. Given the costs and inconvenience of that situation, many patients neglected their health by not seeking primary care. These patients also used the local emergency departments more often and more inappropriately.

How does or how could technology be utilized to improve the effectiveness of your primary care delivery model in terms of outcomes or cost?

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The program will reduce the distance between patients and their healthcare facility. By consequence, the patients will save travel time by being seen in a telemedicine clinic closer to their home. The clinics already in place save counties money by eliminating travel costs to see providers for routine care, and reduce the number of unnecessary emergency room visits by using a nursing care coordinator to triage patients' concerns after the telemedicine visit. This model will decrease wait times for appointments in existing primary care clinics.

What are the barriers to implementing your model?
1. Cost of equipment and clinic set-up.
2. Limited resistance to telemedicine concept.
3. The rules about Medicare and Medicaid reimbursement need to be expanded to include telemedicine practice, including a more flexible definition of who constitutes a health care provider.
4. Licensure can be a problem if the patient and provider are in different states.

The state of Texas has initiated several aggressive telehealth programs, but this form of healthcare delivery still remains highly fragmented and disorganized in this state. Although the advanced statewide health telecommunications network is being rapidly deployed, close collaboration among the many public and private entities committed to implementing telehealth services has yet to materialize, and telehealth has just begun to fulfill its real potential for advancing the healthcare for the citizens of Texas.

What regulatory/legislative/reimbursement issues will be required to implement or expand your model?
1. Reimbursement from Medicare and Medicaid need to be expanded for telemedicine practice.
2. Elimination of the physician presenter requirement.

Due to reimbursement concerns, health care providers may hesitate to initiate the start-up of a telemedicine clinic program. As the use of telemedicine increases, health care providers will recognize telemedicine as an option for delivering quality health care services from a distance while ensuring cost benefits to rural and medically underserved communities.

Specific provisions to promote telemedicine reimbursement are:

* Eliminate the licensed physician presenter requirement (unless deemed medically necessary by the consulting physician or practitioner at the distant site).
* Allow full payment to the consulting physician and the payment of a $20 facility fee to the originating site.
* Broadcast areas that are eligible for telemedicine services to nonmetropolitan statistical areas from health professional shortage areas.
* Endorse home health care agencies' use of telemedicine under the prospective pay system.
* Include "store and forward" as part of telemedicine practice.
* Pursue further studies to look at the cost-effectiveness of telemedicine care.
* Secure funding for pilot programs.
* Secure funding for studies of telemedicine practice.

Innovative Primary Care Models to Improve Access and Outcomes

Caryn Pope, RRT, RCP
Roy Wagner, RRT, RCP
Texas Society for Respiratory Care
Dallas TX
972- 495-9200

Title: The Respiratory Care Practitioner and the COPD Patient

Respiratory Care Practitioners (RCP) are a distinct profession dating back to the 1930's. During each of the seventy-plus years of working with patients with lung disease, no group has potentially benefited more than those with Chronic Obstructive Lung Disease (COPD). Initially, RCPs simply provided oxygen to this patient while hospitalized, usually via an oxygen tent or face mask. But during these seven decades of improved equipment, medication and monitoring the RCP has become not only the provider of respiratory therapy but the most qualified educator for this chronically ill population.

COPD is a major cause of chronic morbidity and mortality throughout the state of Texas. It ranks as the fourth leading cause of death in the United States. Further, due to the aging population increases in the prevalence and mortality of the disease can be predicted in the coming decades. A unified effort of education, research and treatment is required to reverse this trend.

Recently the World Health Organization issued the following statement regarding tobacco use: "Current projections show a rise of 31% in tobacco-related deaths during the next twenty years, which will double the current death toll, bringing it to almost ten million a year," said WHO Director-General Dr LEE Jong-wook to countries attending the Intergovernmental Working Group.

It is the belief of this group that the state of Texas could be the leader in the United States to form throughout the state COPD education groups with its essential tobacco cessation program. This could save the state of Texas millions of dollars in Medicaid expenditures over the next few years.

COPD is a disease state where airflow is limited and no medication will fully reverse that condition. The airflow limitation is usually both progressive and associated with an abnormal response to noxious particles or gases. The diagnosis of COPD should be considered in any patient who has symptoms of cough, sputum production, or shortness of breath and/or a history of exposure to risk factors for the disease. The diagnosis can be confirmed by pulmonary function testing. All physicians are being encouraged to perform simple spirometry on their patients who exhibit the above symptoms. Once even a diagnosis of even mild COPD is made the patient would be referred to the RCP for education and monitoring.

The purpose of ongoing patient education groups is to allow the COPD patient to learn more about the disease. It has been well-documented in peer reviewed literature that ongoing education of the patient about the disease process improves outcomes. The program would consist not only of education regarding disease management and expectations but also a very important component of smoking cessation. It is estimated that over 50% of patients diagnosed with COPD continue to use tobacco.

COPD patient education groups are scattered, at best, throughout the state. Although there are several very successful groups, these tend to be located in the larger metropolitan areas, sponsored by hospital-based respiratory care departments. The goal of this COPD program would be to provide both group education as well as ongoing support education via DVD and/or the internet.

In 1981, the American Thoracic Society gave its first Statement on the efficacy and scientific foundation of pulmonary rehabilitation programs. Since then it has become firmly established that strategies employed by pulmonary rehabilitation programs are now an integral part of the clinical management and health maintenance of patients with COPD who remain symptomatic or continue to have decreased function despite standard medical management. Since pulmonary rehabilitation programs are not available in all areas of the state, we propose that respiratory care practitioners provide a COPD education program including a tobacco education segment.

How will your model improve outcomes without increasing health care cost?
The patients enrolled in these programs are those who would most benefit from it. Prevalence and morbidity data greatly underestimate the total burden of COPD because the disease is usually not diagnosed until it is clinically apparent and moderately advanced.

What process is in place to collect and analyze process and outcome measures?
The program is developed to collect outcome measures. Patients not actively attending group education classes will be contacted via telephone or internet as to well-being and other outcome measures (e.g., ER visits, hospitalizations, unscheduled physician visits, non-routine prescriptions).

Does your model emphasize standard treatment protocols (evidence–based practice guidelines and patient instruction and reinforcement concerning self care?
It is noted throughout the literature that those patients who have improved knowledge of their disease, exposures that trigger exacerbation utilize fewer healthcare services. An effective COPD management plan includes four components:
1. Assessment and monitoring;
2. Reduction of Risk Factors;
3. Management of Stable COPD and;
4. Management of Exacerbations.

The goals of effective COPD management include: prevention of disease progression, relief of symptoms, improvement in exercise tolerance, improve health status, prevent and treat complications, prevent and treat exacerbations and reduce mortality. The Global Initiative for Chronic Obstructive Lund Disease or GOLD Book defines the global strategy for the diagnosis, management and prevention of COPD. This book is the executive summary of the NHLBI/WHO workshop.

How will this model be used to create a "wellness" model rather than an "illness" model?
This program would emphasize the prevention of COPD through the tobacco cessation segment. Since it is known that passive exposure to cigarette smoke may also contribute to respiratory symptoms and COPD by increasing the lung's total burden of inhaled particulates and gases, tobacco cessation classes should be able to reduce this exposure.

Smoking during pregnancy may also pose a risk for the fetus, by affecting lung growth and development of the fetus. It would be suggested that upon determination of pregnancy, a tobacco-using female should be referred to a smoking cessation program.

What effect will your model have on the demand for health workforce in the future?
The model would utilize respiratory care practitioners acting on the referral of a physician, physician's assistant or nurse practitioner. The state currently has an adequate number of RCPs to provide the work force.

How will the community be utilized to improve the health of the community?
Communities will be involved through use of community social programs promoting and setting up smoking cessation classes and offer continuing support for their citizens through open communication, public service announcements and publication of success stories Additionally, we could train and develop lay people for this through a training program. The community is involved by placing the program within the hospitals and/or medical centers. Other healthcare providers would become more aware of the program, encouraging and reinforcing participation. Involvement of community leaders by disallowing smoking in public buildings would help to empower the community and the participants in tobacco cessation.

How will your model improve the culturally sensitive delivery of health care? All cultures develop COPD, all cultures use tobacco. Many materials are now available in English, Spanish and Vietnamese.

How will your model improve health disparities and access to care?
With successful education in the four components of education the COPD patient will need less emergent care, less hospitalization and decreased physician office visits.

How does or how could technology be utilized to improve the effectiveness of your primary care delivery model in terms of outcomes or cost?
Once patients are evaluated by the RCP for understanding of the program and the program is implemented, much of the outcomes monitoring and ongoing education and information could be done via mail or internet.

What are the barriers to implementing your model?
Currently, the numbers of programs are very limited and physicians do not readily refer patients to COPD education programs and smoking cessation programs. If programs were available at the majority of community hospitals and/or medical centers in an ongoing or rotating basis, patients would have much improved access.

What regulatory/legislative/reimbursement issues will be required to implement or expand your model?
Reimbursement for patient education would be necessary for this population as it is for the patient with diabetes. Thus changes in reimbursement regulations would be required.